AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of managing network devices by specifying device components using a parsable string that conforms to a specified grammar, the method comprising the computer steps of:

creating and storing one or more entity location specifier values each comprising one or more location elements;

wherein the one or more entity location specifier values are specified as parsable strings;

wherein the parsable strings conform to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of entities within one or more network devices;

receiving from an application a retrieval request for a particular entity location specifier value; and

transmitting the particular entity location specifier value to the application.

2. (original) A method as recited in Claim 1 wherein the parsable strings are stored in MIB objects and wherein the one or more entity location specifier values are specified as the parsable strings in the MIB objects.

3. (original) A method as recited in Claim 1 wherein a particular location element of the one or more location elements is selected from among the group consisting of chassis=value, shelf=value, slot=value, subSlot=value, port=value, subPort=value, channel=value, subChannel=value, and processor=value.

4. (original) A method as recited in Claim 1 wherein the step of transmitting further comprises the step of transmitting the particular entity location specifier value to the application in a single response.

5. (original) A method as recited in Claim 1 wherein the one or more entity location specifier values contain location elements that identify both logical entities and physical entities .

6. (original) A method as recited in Claim 1 wherein the one or more entity location specifier values are stored in MIB-call-records on specifier values in said MIB.

7. (original) A method as recited in Claim 1 wherein the superset of location elements is extensible.

8. (original) A method as recited in Claim 1 wherein the specified grammar is compatible with Command Line Interface.

9. (original) A method as recited in Claim 1 wherein the specified grammar is defined according to Augmented Backus-Naur Form (ABNF).

10. (original) A method as recited in Claim 9 wherein the grammar is defined as:

location-specifier =elem * (',' elem)
elem = loctype '=' number
number=%x00-FFFFFFFF / %d0-4294967295
loctype = 1*32VCHAR.

11. (original) A method as recited in Claim 10 wherein the "loctype" defined within the grammar is an enumerated value that provides location information of a particular physical or logical entity selected from the set consisting of chassis, shelf, slot, port, sub-port, channel, and sub-channel.

12. (original) A method as recited in Claim 1 wherein the parsable strings conform to a first textual convention and a second textual convention.

13. (original) A method of managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, the method comprising the computer-implemented steps of:
issuing a retrieval request for a particular entity location specifier value to an agent on a network device;

wherein the particular entity location specifier value is specified as the parsable string;

wherein the particular entity location specifier value comprises one or more location elements;

wherein the parsable string conforms to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving the particular entity location specifier value; and

processing the particular entity location specifier value to determine a location of an entity.

14. (original) A method as recited in Claim 13 wherein the parsable string is stored in a MIB object.

15. (original) A method as recited in Claim 13 wherein a particular location element of the one or more location elements is selected from among the group consisting of chassis=value, shelf=value, slot=value, subSlot=value, port=value, subPort=value, channel=value, and subChannel=value.

16. (original) A method as recited in Claim 13, wherein the step of receiving further comprises the step of receiving the particular entity location specifier value in a single response.

17. (original) A method as recited in Claim 13 wherein the particular entity location specifier value comprising the one or more location elements that identify both logical entities and physical entities.

18. (original) A method as recited in Claim 13 wherein the superset of location elements is extensible.

19. (original) A method as recited in Claim 13 wherein the specified grammar is compatible with CLI.

20. (original) A method as recited in Claim 13 wherein the specified grammar is defined according to Augmented Backus-Naur Form (ABNF).

21. (original) A method as recited in Claim 20 wherein the grammar is defined as:
location-specifier =elem * (',' elem)
elem = loctype '=' number
number=%x00-FFFFFFFF / %d0-4294967295
loctype = 1*32VCHAR.

22. (original) A method as recited in Claim 21 wherein the loctype defined within the grammar is an enumerated value that provides location information of a particular physical or logical entity selected from the set consisting of chassis, shelf, slot, port, sub-port, channel, and sub-channel.

23. (original) A method as recited in Claim 13 wherein the parsable string conforms to a first textual convention and a second textual convention.

24. (original) A method as recited in Claim 13 wherein the step of processing further comprises the step of parsing the parsable string to determine the one or more location elements.

25. (original) A computer-readable medium carrying a data structure used in managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, comprising:
a location specifier value comprising one or more location elements;
wherein the location specifier value is specified as the parsable string that conforms to the specified grammar;
wherein the location specifier value is in a MIB object;
wherein the one or more location elements are selected from a superset of location elements that specify locations of all entities within one or more network devices; and

wherein the parsable string can be retrieved from the MIB object with a retrieval request.

26. (currently amended) A computer-readable medium carrying one or more sequences of instructions for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

creating and storing one or more entity location specifier values each comprising one or more location elements;

wherein the one or more entity location specifier values are specified as parsable strings;

wherein the parsable strings conform to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more devices;

receiving from an application a retrieval request for a particular entity location specifier value; and

transmitting the particular entity location specifier value to the application.

27. (original) A computer-readable medium carrying one or more sequences of instructions for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, when executed by one or more processors, cause the one or more processors to carry out the steps of:

issuing a retrieval request for a particular entity location specifier value to an agent on a network device;

wherein the particular entity location specifier value is specified as the parsable string;

wherein the particular entity location specifier value comprises one or more location elements;

wherein the parsable string conforms to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving the particular entity location specifier value; and

processing the particular entity location specifier value to determine a location of an entity.

28. (original) An apparatus for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, comprising:

means for creating and storing one or more entity location specifier values each comprising one or more location elements;

wherein the one or more entity location specifier values are specified as parsable strings;

wherein the parsable strings conform to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

means for receiving from an application a retrieval request for a particular entity location specifier value; and

means for transmitting the particular entity location specifier value to the application.

29. (original) An apparatus for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, comprising:

a network interface that is coupled to a data network for receiving one or more packet flows therefrom;

a processor;

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of:

creating and storing one or more entity location specifier values each comprising one or more location elements;

wherein the one or more entity location specifier values are specified as parsable strings;

wherein the parsable strings conform to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving from an application a retrieval request for a particular entity location specifier value; and

transmitting the particular entity location specifier value to the application.

30. (original) An apparatus for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, comprising:

means for issuing a retrieval request for a particular entity location specifier value to an agent on a network device;

wherein the particular entity location specifier value is specified as the parsable string;

wherein the particular entity location specifier value comprises one or more location elements;

wherein the parsable string conforms to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

means for receiving the particular entity location specifier value; and

means for processing the particular entity location specifier value to determine a location of an entity.

31. (original) An apparatus for managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, comprising:

a network interface that is coupled to a data network for receiving one or more packet flows therefrom;

a processor;

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of:

issuing a retrieval request for a particular entity location specifier value to an agent on a network device;

wherein the particular entity location specifier value is specified as the parsable string;

wherein the particular entity location specifier value comprises one or more location elements;

wherein the parsable string conforms to the specified grammar;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving the particular entity location specifier value; and

processing the particular entity location specifier value to determine a location of an entity.

32. (original) A method of managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, the method comprising the computer steps of:

creating and storing one or more entity location specifier values each comprising one or more location elements;

wherein the one or more location elements are for logical entities and physical entities;

wherein the one or more entity location specifier values are specified as parsable strings in MIB objects;

wherein the parsable strings conform to ABNF;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving from an application a single retrieval request for a particular entity location specifier value; and

transmitting the particular entity location specifier value to the application in a single response.

33. (original) A method of managing network devices by specifying device components using a parsable string that conforms to a specified grammar to provide platform independent management, the method comprising the computer-implemented steps of:

issuing a single retrieval request for a particular entity location specifier value to an agent on a network device;

wherein the particular entity location specifier value is specified as the parsable string;

wherein the particular entity location specifier value comprises one or more location elements;

wherein the one or more location elements are for logical entities and physical entities;

wherein the parsable string conforms to ABNF;

wherein each of the one or more location elements is selected from a superset of location elements that specify locations of all entities within one or more network devices;

receiving the particular entity location specifier value in a single response; and

processing the particular entity location specifier value to determine a location of an entity.